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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/696,436

10/29/2003

Koichiro Hara

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04/19/2006

REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT

599 LEXINGTON AVENUE, 29TH FLOOR

NEW YORK, NY 10022-7650

EXAMINER

NGUYEN, THINH H

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,436

Applicant(s)

HARA, KOICHIRO

Examiner

Thinh H. Nguyen

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-32 is/are allowed.
- 6) ☒ Claim(s) 1,11 and 14 is/are rejected.
- 7) ☒ Claim(s) 2-10,12,13 and 15-26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: the term "lest" (line 4) should have been "least". Same line the term "man" after "black" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 11, 14 are rejected under 35 U.S.C. § 102(b) as being anticipated by Terasawa et al. (U.S.6,290,329)

Terasawa discloses elements of the instant claimed color ink-jet recording apparatus and method comprising:

a first ink ejecting portion operable to eject droplets of a first ink of a first color (see black printhead 2A);

a second ink ejecting portion operable to eject droplets of a second ink of a second color other than said first color (see color printheads 2B, 2C, and 2D);

a first control portion (as described by portion of head driving system 23; col.6, line 4) operable to control said first ink ejecting portion such that a total volume of at

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least one droplet of said first ink ejected by said first ink ejecting portion to form each dot of said first ink on a recording medium is equal to a first value, when an image is formed on the recording medium with a predetermined resolution (as described by double printing in ½ pitch mode; col.7, lines 5-13), with a predetermined gray-scale value at a picture element corresponding to said each dot of said first ink .

In the context of the respective gray scale values, resolution, and pulse waveform signal generated by pulse generator as claimed in claims 2-4, 6-13, 15-17, any known printer controller having the ability to change drop size and volume are inherently assumed as with the Terasawa printer); and

a second control portion (as described by portion of head driving system 23; col.6, line 4) operable to control said second ink ejecting portion such that a total volume of at least one droplet of said second ink ejected by said second ink ejecting portion to form each dot of said second ink on the recording medium, is equal to a second value smaller than said first value, when said image is formed on the recording medium with said predetermined resolution, with said predetermined gray-scale value at a picture element corresponding to said each dot of said second ink (see col.7, lines 53-60);

Re claim 14, a pulse-waveform-data memory for storing pulse-waveform data indicative of a plurality of different waveforms corresponding to respective different total volume values of at least one droplet of each of the black ink and the ink of said color other than black (col.11, line 35);

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and wherein said first and second control portions control said first and second ink ejecting portions such that a relationship between said selected one total volume value of the at least one droplet of said black ink and said another total volume value of the at least one droplet of the ink of said color other than black changes when a presently selected print mode of the color ink-jet printer is changed from one mode to another. (Characterized by black ink having double shot of ink deposition (total volume) in the OHP film or plain paper mode that is larger than of the color ink whereas in the coated paper mode the total volume is one shot to all cyan, magenta, yellow, and black; see col.7, line 24 – col.8, line 28).

Allowable Subject Matter

4. Claims 2-10, 12-13, 15-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 27-32 are allowed.

Patent Application Information Retrieval (PAIR)

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Response to Amendment

7. Applicant's Amendment filed January 23, 2006 has been entered and carefully considered. Claims 18-32 have been added.

Applicants' arguments with respect to new issues that said first and second control portions control said first and second ink ejecting portions such that a relationship between said selected one total volume value of the at least one droplet of said black ink and said another total volume value of the at least one droplet of the ink of said color other than black changes when a presently selected print mode of the color ink-jet printer is changed from one mode to another have been considered as noted in the above new grounds of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

8. Any inquiry concerning this communication should be directed to examiner Thinh Nguyen at telephone number (571) 272-2257. The examiner can generally be reached Mon-Wed, Thursday from 9:00A – 5:00P. The official fax phone number for the organization is (571) 273-8300. The examiner supervisor, Dave Talbott, can also be reached at (571) 272-1934.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1782.


Thinh Nguyen
April 13, 2006

**Thinh Nguyen
Primary Examiner
Technology Center 2800**